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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/885,113	06/21/2001	Yozo Shoji	210095US2	4712

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EXAMINER

AL AUBAIDI, RASHA S

ART UNIT PAPER NUMBER

2642

DATE MAILED: 12/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/885,113	<b>Applicant(s)</b> SHOJI ET AL.	
	<b>Examiner</b> Rasha S AL-Aubaidi	<b>Art Unit</b> 2642	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 21 June 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 2,3,5 and 6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1 and 4 is/are allowed.
- 6) ☒ Claim(s) 2,3,5 and 6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

***Allowable Subject Matter***

1. Claims 1 and 4 are allowable over the prior art of record.

The following is a statement of reasons for the indication of allowable subject matter:

For independent claim 1, the claimed two-way communication system, for communication between a first and a second radio stations, which comprises the two radio stations with the recited components, wherein the second radio station is equipped with a receiver, a signal modulator, a transmitter and wherein the second radio station is equipped with a local oscillation signal regenerator for extracting and regenerating just a local oscillation component from among signal components received from the first radio station, as recited in claim 1, is neither taught nor made fairly obvious over the prior art of record.

Claim 4 has a method claim that corresponds to claim 1.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

2. Claims 2-3 and 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Na (US PAT # 6,112,069).

Regarding claim 2, Na teaches a modulated transmission signal generator that produces a modulated radio transmission signal by using a local oscillation signal to up-convert the modulated signal to a radio frequency band (see col. 5, lines 60-65); a transmitter that transmits the local oscillation signal used by the modulated transmission signal generator together with the modulated radio transmission signal as a radio signal (see col. 5, lines 50-52 and col. 6, lines 12-20); and a receiver that receives a radio signal from the other radio station and down-converts the received signal to a modulated intermediate frequency band by generating a multiplication component of a modulated radio signal component and local oscillation signal component received from the other radio station (see col. 6, lines 20-27).

Na does not specifically teach a two-way radio communication system for a two-way communication between a first and a second radio stations. However, it teaches a radio receiver in a radio communication system that has a receiver and transmitter (see col. 12, lines 30-32).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have such a radio receiver that receives and transmits signals back and forth with another transmitter, mobile, phone, or any other two-way communication device. Being able to transmit and receive signals at one radio station (one-way radio communication), obviously means being able

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to transmit and receive signals between more than one radio station (two- way radio communication).

Claims 3 and 5-6 are rejected for the same reasons as discussed above with respect to claim 2.

### ***Conclusion***

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Haley et al (US PAT # 3,733,438) teaches carrier supply for frequency division multiplexed system (see abstract).

Schlang et al (US PAT # 5,890,051) teaches a mobile phone receiver comprises a first down converter using a first local oscillator frequency which can be tuned in a frequency steps by a programmable digital frequency synthesizer PLL (see abstract).

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rasha S AL-Aubaidi whose telephone number is (703) 605-5145. The examiner can normally be reached on Monday-Friday from 8:30 am to 5:30 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ahmad F Matar, can be reached on 305-4731. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Examiner

Rasha S. Al-Aubaidi

12/01/2004



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